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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/735,162	12/11/2003	Hawley K. Rising III	80398.P534C	1651

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EXAMINER

PARDO, THUY N

ART UNIT PAPER NUMBER

2165

DATE MAILED: 05/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/735,162

Applicant(s)

RISING, HAWLEY K.

Examiner

Thuy Pardo

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 December 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 21-132 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 21-132 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 December 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 4/26/2004.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Drawings

New corrected drawings in compliance with 37 CFR 1.121(d) are required in this application because fig. 2 is informal. Applicant is advised to employ the services of a competent patent draftsman outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 21-132 are rejected under the judicially created doctrine of double patenting over claims 1-15 of U. S. Patent No. 6,721,759 since the claims, if allowed, would improperly extend the "right to exclude" already granted in the patent.

The subject matter claimed in the instant application is fully disclosed in the patent and is covered by the patent since the patent and the application are claiming common subject matter, as follows: performing a hierarchical data structure of root and leaf nodes representing a multidimensional scaling database defined by a set of points that correspond to a set of objects.

Furthermore, there is no apparent reason why applicant was prevented from presenting claims corresponding to those of the instant application during prosecution of the application which matured into a patent. See *In re Schneller*, 397 F.2d 350, 158 USPQ 210 (CCPA 1968). See also MPEP § 804.

Claim Rejections - 35 USC § 102

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the

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reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claims 21, 31, 40, 49, 59, 68, 77, 87, 96, 105, 115 and 124 are rejected under 35 U.S.C. 102(e) as being anticipated by Becker US Patent No. 6,301,579.

As to claim 21, Becker teaches the invention substantially as claimed, comprising:
creating a root node [1102 of fig. 11A] comprising coordinates in the MDS space for a first subset of the set of points [col. 3, lines 50-60] the root node further comprising boundary information in the MDS space for local MDS spaces defined by further subsets of the set of points [col. 7, lines 38 to col. 8, lines 29]; and
creating a plurality of leaf nodes [1114, 1116, 1118 of fig. 11A], each leaf node [B of fig. 12] comprising coordinates in a local MDS space for the points in one of the further subsets [Cs of fig. 12].

As to claim 40, Becker teaches the invention substantially as claimed, comprising identifying a node for a new point corresponding to a new object based on attribute proximities between the new object and existing objects [col. 17, lines 59 to col. 18, lines 62; col. 20, lines 48-64].

As to claims 31, 49, 59, 68, 77, 87, 96, 105, 115 and 124, all limitations of these claims have been addressed in the analysis above, and these claims are rejected on that basis.

Allowable Subject Matter

3. Claims 22-30, 32-39, 41-48, 50-58, 60-67, 69-76, 78-86, 88-95, 97-104, 106-114, 116-123 and 125-132 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

As to claims 22, 50, 78 and 106, the feature of selecting the first subset of points based on the distances between pairs of points, taken together with other limitations of claims 21, 49, 77 and 105 was not disclosed by the prior art of record.

As to claims 24, 52, 80 and 108, the feature that creating a root node comprises running MDS on the first subset of points to define the MDS space, taken together with other limitations of claims 21, 49, 77 and 105 was not disclosed by the prior art of record.

As to claims 25, 53, 81 and 109, the feature that creating a plurality of leaf nodes comprises iteratively grouping the points remaining after selecting the first subset into the further subsets based on coordinates in the MDS space of the remaining points, taken together with other limitations of claims 21, 49, 77 and 105 was not disclosed by the prior art of record.

As to claims 29, 57, 85 and 113, the feature that each node further comprises a map relating distances between pairs of points in the associated MDS space with the attribute proximities between the corresponding objects, taken together with other limitations of claims 21, 49, 77 and 105 was not disclosed by the prior art of record.

As to claims 30, 58, 86 and 114, the feature that the leaf nodes further comprise coordinates for any overlapping portions of the associated local MDS spaces, taken together with other limitations of claims 21, 49, 77 and 105 was not disclosed by the prior art of record.

As to claims 32, 41, 60, 69, 88, 97, 116 and 125, the feature of adding the new point into the subset associated with the identified node and redefining the local MDS space for the identified node, taken together with other limitations of claims 21 and 31, 49 and 59, 77 and 87, 105 and 115, 40, 68, 96 or 124 was not disclosed by the prior art of record.

As to claims 38, 47, 66, 75, 94, 103, 122 and 131, the feature of determining points in the subset associated with the identified node that are within a pre-determined distance of the new point, taken together with other limitations of claims 21 and 31, 49 and 59, 77 and 87, 105 and 115, 40, 68, 96 or 124 was not disclosed by the prior art of record.

Claims 23, 26-28, 33-37, 39, 42-46, 48, 51, 54-56, 61-65, 67, 70-74, 76, 83-85, 89-93, 95, 98-102, 104, 107, 110-112, 117-121, 123, 126-130 and 132 being further limiting to claims 21 and 31, 49 and 59, 77 and 87, 105 and 115, 40, 68, 96 or 124 are also objected to.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thuy Pardo, whose telephone number is 571-272-4082. The examiner can normally be reached Monday through Thursday from 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dov Popovici, can be reached at 571-272-4083.

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The fax phone number for the organization where this application or proceeding is assigned are as follows: (703) 872-9306 (Official Communication)

and/or:

571-273-4082 (*Use this Fax#, only after approval by Examiner, for "INFORMAL" or "Draft" communication. Examiner may request that a formal/amendment be faxed directly to then on occasions*).

Any inquiry of a general nature of relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-3900.

5. Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 308-9051, (for formal communications intended for entry)

Or:

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(703) 308-5359, (for informal or draft communications, please label

"PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal
Drive, Arlington. VA., Sixth Floor (Receptionist).

April 28, 2005

A handwritten signature in black ink, appearing to be 'Thuy N. Pardo', with a stylized, looping design.

THUY N. PARDO
PRIMARY EXAMINER